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PLACE-BASED GOVERNANCE OF URBAN FORESTS AND GREEN SPACES FOR CLIMATE-RESILIENT CITIES



This policy brief summarizes the advantages of a collaborative, place-based approach for climate-resilient urban forestry and urban greening.

PLACE-BASED GOVERNANCE OF URBAN FORESTS AND GREEN SPACES FOR CLIMATE-RESILIENT CITIES

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THE CHALLENGE

Climate change is one of the foremost challenges confronting the environmental, social and economic resilience of cities today. It is estimated by the World Bank that by the year 2030 cities will bear approximately €70 to €90 billion per year in climate change adaptation costs associated with the impacts of an increasingly volatile climate. This emerging context represents a comprehensive decrease in the quality of daily urban life.

Urban green spaces such as parks, forests and community gardens are at the foreground of the increasingly popular 'green infrastructure' approach to urban climate change preparedness. Urban green spaces provide a range of ecosystem services, thereby offering robust and multi-functional solutions to, for example, increased heat waves and flooding. In spite of the strong emergence of an ecological focus on the urban political agenda, there is a lack of local socio-cultural context in urban environmental governance, planning, and management. Urban greening campaigns from New York to Singapore have been called overly technocratic in their focus on ecosystem services delivery as opposed to local community needs. Urban greening campaigns have also been shown to spur ecological gentrification, or the wide-spread socio-economic upheaval of a neighborhood, by contributing to the rapid increase of local real estate values in the name of urban re-naturing and climate resilience.

Fortunately, there are also inclusive approaches to urban greening. This policy brief outlines a place-based approach to green governance focusing on ways in which citizens can bring their local and diverse perspectives on nature and biodiversity to the creation and management of climate resilient urban forestry and urban greening.

A POLICY CONTEXT FOR PLACE-BASED GREEN GOVERNANCE:

A place-based green governance approach to climate resilient urban forestry and urban greening is a key element in a number of international policies:

Agenda 21 is a global, non-binding action plan produced following the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992. The Agenda engages at multiple levels to promote sustainable development. At local levels, 'Local Agenda 21' is intended to be elaborated and adopted through consultation and consensus by local authorities, communities and businesses.

The Aarhus Convention focuses on the environmental rights of the public, promoting the right of citizens to participate in environmental decision-making processes.

UN Habitat Guiding Principles for City Climate Action Planning aim to support local officials and planners in climate action planning in tandem with citizens, to adapt to the volatile impacts of climate change and build-in local climate resilience.

The European Landscape Convention sets out to support the protection, management and planning of landscapes and organizes European co-operation on landscape issues by encouraging local communities to take an active part.

The European Commission's Nature-Based Solutions Strategy aims to transform environmental, social and economic challenges into innovative opportunities by working with the power and sophistication of nature. Nature-based solutions deliver climate resilience with a strong focus on the benefits to people and the environment itself. In this regard, nature-based solutions move beyond traditional conservation and biodiversity management principles by refocusing the solution on human well-being and socio-economic development. As climate changes manifest locally, nature-based solutions should be locally sourced and adapted to provide resource efficient and systematic climate mitigation.

WHAT DO WE KNOW ABOUT A PLACE-BASED APPROACH TO GREEN GOVERNANCE?

Community-based planning is not new. Yet 'place-making' is an emerging approach within participatory processes that orients planners and designers toward communities' unique identities and aspirations. Key to place-making is the transformation of a "space" to a "place" whereby place imparts the personal and emotional bonds people have to a location they know well and claim as their own. The process of place-making is collaborative and includes diverse and often conflicting voices to promote urban design based in local notions of home, social cohesion and well-being. The community assumes the role of expert; planners are facilitators and service providers. When done well, place-making inspires citizens to collectively reimagine and reinvent the spaces around them into meaningful places that they ideally take ownership of through place-keeping activities.



Picture 1: The city of Melbourne, Australia is working with citizens' in their urban forest strategy to increase the urban canopy by 40% by 2040. By bringing the strategy down to a neighborhood scale with a focus on climate resilience and community well-being, citizens are challenged to move beyond a long-standing debate regarding Australian vs. European tree species to focus on personal planting preferences and locations. This place-based approach to urban forestry has resulted in strong local attachment to and stewardship of existing and newly planted trees. Since the strategy's implementation in 2012, citizens have engaged in the planting of over 3,000 trees annually.

SITUATING GREEN GOVERNANCE IN NOTIONS OF PLACE:

Green governance refers to the collective steering of decision-making involved in the control and management of physically and functionally interconnected networks of green spaces, ranging from woodlands and parks to community gardens. Place-based approaches to green governance take this further, as illustrated in figure 1, by integrating the multi-layered understandings of place, from shared and objective to personal and subjective, into a collaborative and citizen-driven urban greening context. In its most objective sense, place can refer to an *inherent* identity that is collectively shared and understood by all such as the city of *instrumental* understanding of place refers to the objective needs all individuals might have in any given place such as clean air and clean water and is potentially generalizable across similar landscapes and bio-regions. A *socio-cultural* perspective on place refers to the expectations and norms of the populace, such as the strong cultural preferences for non-native European elm trees in Melbourne, Australia. An *identity expressive* approach to place taps into the intangible, emotional, and spiritual meanings ascribed by individuals to a place which give individuals a sense of self and an attachment to place, such as a citizen's strong attachment to an individual street tree. These layered meanings of place demonstrate the wide range of symbolic and emotional values attached to urban forests and green spaces and contextualize green governance within the act of place-making.

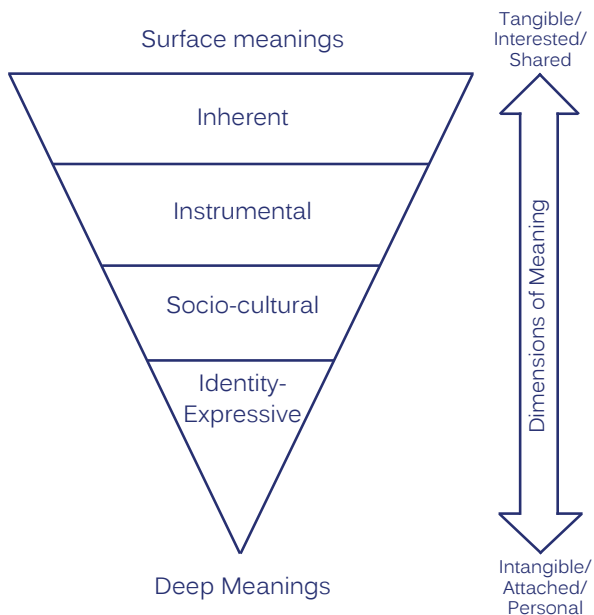
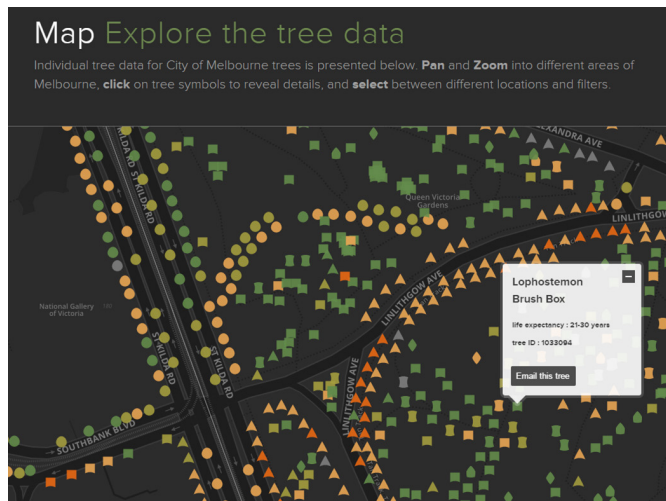


Figure 1: Layers of place meaning adopted from Williams, 2014

CULTIVATING GREEN PLACE ATTACHMENT IN CLIMATE RESILIENT URBAN FORESTRY AND URBAN GREENING

This multi-layered understanding of place is critical when working with citizen perspectives and preferences in urban greening campaigns. It supports green space planners and managers to integrate and mediate shared and personal understandings of urban nature and biodiversity. Engaging citizens with diverse and multi-cultural perspectives in green place making ensures that various qualities and preferences are included in urban greening campaigns for climate resilience. Supporting “biocultural” diversity or the various and conflicting ways in which people live with urban green areas and interact with diverse forms of nature reframes what can quickly become a technical discussion on the services provided by landscapes to a personal and human-centered approach to place-based greening. The biocultural values of a landscape, such as the spiritual attachment to a tree or the inherent beauty of an urban woodland, are irreplaceable and provide exactly the personal and deep attachments necessary to cultivate long-term citizen stewardship of urban green areas. The climate resilience of urban landscapes, or the ability to recover quickly from disaster, is dependent not only on strategic actions of public officials but also on the long-term stewardship and place attachment of citizens.



Picture 2: As mentioned, many trees- over 12,000- have been planted in Melbourne, Australia. Thousands of citizens, from “traditional aboriginal owners” of the city to friends groups and school children have been involved in species selection and planting, through face-to-face community mapping and identification of place-based tree values as well as interactive on-line mapping and education tools. In an innovative twist, the city assigned all 77,000 trees individual email addresses with the idea that residents could report vandalism or complaints. However, citizens of all ages and backgrounds began sending love letters to their favorite trees. A diverse swath of citizens is now actively engaged in the implementation of the strategy, contributing critical data in an on-line urban forestry registry as well as in person as citizen urban foresters.

ACTIONS FOR PLACE-BASED GREEN GOVERNANCE:

There is clearly a need to engage citizens with diverse and multi-cultural perspectives in green place-making to ensure that various qualities and preferences are included in urban forestry and urban greening campaigns for climate resilience and beyond. To achieve this, we recommend the following actions:

1. Understand your biocultural context: mapping the cultural values of a community augments and enhances traditional inventories of ecosystem services and can be conducted face to face and/or on-line. A biocultural inventory should be regularly updated to reflect a real-time understanding of socio-cultural preferences and the localization of the most highly valued ecosystems and places in a landscape. Such mapping exercises should be conducted at a local/neighborhood-based scale to provide place-based ecological knowledge to enhance planning and management as well as community ownership of local landscapes. Diverse and contested perspectives are more easily recognized and mediated if the mapping tool is widely-accessible (as an on-line and real-time tool) and adjusted actively according to research and citizen feedback.

2. Establish transparent and interactive decision-making platforms: Actively involve citizens in the development and implementation of urban greening strategies through interactive and knowledge-rich platforms that tell a story and establish a joint agenda for climate resilience urban forestry and urban greening. Provide citizens with data from tree registries and landscape inventories and treat them as experts. Build public understanding of the challenges facing local landscapes and the value of healthy urban landscapes through visual knowledge exchange including interactive on-line maps and educational forums. Understand the community's thoughts and perceptions of local landscapes through public forums and non-traditional online tools such as email addresses for specific ecosystems or trees. Engage children through art and mapping exercises.

3. Communicate and educate together with citizens: Urban forestry and urban greening for climate adaptation can quickly become technical and contested. To overcome this barrier, encourage community debate and participation in a formal engagement process and gain community endorsement of future activities. Spark in-formal community engagement processes through art contests in schools and social media campaigns. Help citizens understand the reasoning behind official approaches to landscape management activities. Target key groups such as residents and neighborhood councils, businesses, community interest groups, politicians and schools and universities. Reach out to hard-to-reach citizens through social channels and cultural networks.

4. Engage and empower citizens for urban forestry and urban greening stewardship for climate resilience: Do not tell the story alone. Engage external advocates from across the community to tell the story, provide support and build momentum. Draw on related projects to build environmental awareness and understanding and to demonstrate connections and benefits that trees and parks have across a community for climate resilience. Build in place-making activities to develop shared and personal attachment to urban forestry and urban greening.

5. Extend place-making to place-keeping: Places can only be successful, resilient and vibrant in the face of long-term climate change if place making is extended into place keeping. The latter will require local community engagement and stewardship, as well as longer-term partnerships.

Forestry in the Nordic and Baltic countries is increasingly influenced by urban values, norms and demands. For this reason, Nordic Forest Research (SNS) supports collaboration and knowledge exchange among leading researchers in a Nordic and Baltic Centre of Advanced Research on Forestry Serving Urban Societies, 'CARE-FOR-US'.

CARE-FOR-US conducts, compiles and disseminates the scientific state of art to promote an active and efficient science-policy interface on strategic issues related to forestry serving urban societies.



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This policy brief is based on the following publications:

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Front page: biocultural diversity

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